

**Remarks/Arguments**

Applicant has received and carefully reviewed the Office Action of the Examiner mailed March 12, 2008. In this Amendment, claims 1-20, 29, 30, and 35-46 are pending. Claims 1-20, 29, 30, and 35-46 have been rejected. Reconsideration and reexamination are respectfully requested.

***Claim Rejections - 35 USC § 102***

On page 2 of the Office Action, claims 39-40 and 42-45 were rejected under 35 U.S.C. 102(e) as being anticipated by Hill et al. (U.S. Patent No. 7,092,794). After careful review, Applicant must respectfully disagree.

Turning to claim 39, which recites:

39. (previously presented) A method for determining which of a plurality of HVAC systems will require maintenance, the method comprising the steps of:

transmitting a test request to each of the plurality of HVAC systems from the remote location;

performing one or more tests on at least selected ones of the HVAC systems in response to the test request, and producing a test result for each of the selected HVAC systems;

transmitting the test result for each of the selected HVAC systems to a remote location;

storing the test results at the remote location; and

identifying which of the HVAC systems will likely need service by analyzing the test results.

Nowhere does Hill et al. appear to teach or suggest transmitting a test request to each of the plurality of HVAC systems from the remote location, performing one or more tests on at least selected ones of the HVAC systems in response to the test request, producing a test result for each of the selected HVAC systems, transmitting the test result for each of the selected HVAC systems to a remote location, as well as other elements of claim 39. On pages 2 of the Office Action, the Examiner cites column 2, lines 15-26 as teaching or suggesting the elements of claim 39. Applicant must respectfully disagree. Column 2, lines 15-29 of Hill et al. states:

According to an embodiment of the invention, a method for remotely monitoring and controlling at least one HVAC device includes the steps of (a) providing a server with communications access to an entry device and the at least one HVAC device; (b) querying the at least one HVAC device for status information on a regular basis or when requested by a message from the entry device; (c) sending the status information to the entry device in response to the querying; (d) checking for messages from the at least one HVAC device; (e) automatically updating a database in the server relating to a status of the at least one HVAC device on a regular basis in the absence of the message from the entry device; and (f) changing settings on the at least one HVAC device from the entry device (emphasis added).

This passage appears to teach merely querying for status information, sending the status information to the entry device in response to the query, checking for messages, updating a database in the server, and changing setting on an HVAC device. Nothing in this passage teaches or suggests many of the elements of claim 39 including, for example, performing one or more tests on at least selected ones of the HVAC systems in response to a test request. That is, Applicant does not believe it can readily be argued that merely querying an HVAC device for status information is equivalent to performing one or more tests on at least selected ones of the HVAC systems in response to a test request, as recited in claim 39. Querying an HVAC device for status information would clearly not actively perform any tests on the HVAC device.

The Examiner also cites column 4, lines 39-40 in the Office Action for the identifying step of claim 39. Column 4, lines 32-45 of Hill et al. states:

If the message in step 512 is from a user, the message is checked in step 514 to see if the message contains the user name and password. If not, the program reverts to step 510. If so, the user database is queried in step 516 for the password associated with the user name. If the password and name don't match in step 518, the program reverts to step 510. If there is a match, the database is queried in step 520 for the HVAC units associated with the user name. A valid unit list is sent back in step 522. Then, in step 524, server 12 checks to see if a message has been received to display unit information such as that shown in FIG. 7. If so, the database is queried in step 526 for the unit information, after which the unit information is sent in step 528 and control passes to step 524.

(Emphasis added). Nothing here appear to teach, disclose or suggest “identifying which of the HVAC systems will likely need service by analyzing the test results”. Also, nothing in this

passage appears to teach or suggest transmitting a test request to each of the plurality of HVAC systems from the remote location, performing one or more tests on at least selected ones of the HVAC systems in response to the test request, producing a test result for each of the selected HVAC systems, as recited in claim 39.

As noted above, Hill et al. appears to teach a method in which an HVAC device is queried for status information. (See column 1, line 55 through column 2, line 29). Hill et al. also appears to teach "server 12 checks to see if a message has been received to display diagnostic information such as that shown in Fig. 7. If so, the database is queried in step 532 for the diagnostic information, after which the diagnostic information is sent in step 534." (Emphasis added, see column 4, lines 46-51). Column 5, line 6-14 of Hill et al. states:

Status information on the HVAC devices which is contained in the unit database is either updated on a regular basis or when requested by a message from the entry device. That is, status information can be sent to the server by the HVAC controller on a regular basis, or the server can request the status information from the HVAC controller on a regular basis, in addition to or in place of the server requesting status information in response to a message from the entry device.

(Emphasis added). As can be seen, Hill et al. merely disclose a system in which status information is provided and diagnostic information may be monitored and displayed in response to a request.

Furthermore, column 2, lines 50-64 of Hill et al. states:

Referring to Fig. 1, an entry device 10 such as a WAP (Wireless Access Protocol) cell phone, a handheld computer, or a PDA (Personal Digital Assistant) connects to a server 12 either via the Internet or a GSM/Internet interface. Entry device 10 is any device that allows a user to enter or receive data, whether over wireless or wired communication paths. Server 12 in turn is connected to an HVAC device 14 through the Internet and/or some other communications link such as the GSM Network or POTS (plain old telephone system) network. A user uses the entry device 10 to access diagnostic or status information relating to HVAC device 14. Typical users include an individual owner who wishes to change a setpoint, a service technician who wishes to check diagnostic information, or a building supervisor who wishes to control a number of devices (emphasis added).

(Emphasis added). At most, Hill et al. appear to suggest accessing and checking diagnostic or status information related to an HVAC device 14 from a remote location. The diagnostic or

status information would appear to be generated by the HVAC device 14 itself, and not in response to any remote request of Hill et al. Clearly, nothing in these passages of Hill et al. suggests performing one or more tests on at least selected ones of the HVAC systems in response to the test request, as recited in claim 39. Rather, Hill et al. only appears to disclose accessing and sending diagnostic or status information (that is likely self generated by the HVAC system at some previous time) upon request.

Furthermore, if the Examiner is considering the elements recited in claim 39 to be inherent in Hill et al., Applicants submit that there is no basis for such an interpretation. MPEP 2112 IV. states:

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); *In re Oelrich*, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981). "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'" *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999)

(Emphasis added). Applicants submit that performing one or more tests on at least selected ones of the HVAC systems in response to the test request is clearly not necessarily present in Hill et al. Therefore, for at least these reasons, Hill et al. would appear to clearly fail to teach each and every element of claim 39, as is required for anticipation. Thus, claim 39 is believed to be clearly not anticipated by Hill et al. Furthermore, there appears to be no reason or motivation to modify the teachings of Hill et al. to arrive at the claimed invention. Therefore, claim 39 is believed to be clearly patentable over Hill et al. For similar and other reasons, claim 40, which depends from claim 39 and include additional elements, is also believed to be clearly patentable over Hill et al.

Turning to claim 43, which recites:

43. (previously presented) A method of remote testing of HVAC systems comprising the steps of:  
transmitting one or more maintenance signals from a remote unit to a specified group of customer HVAC systems, the specified group being a number less than a total number of customer HVAC systems in a customer database;  
receiving the one or more maintenance signals at each of the HVAC systems, the one or more maintenance signals activating an HVAC component;  
performing a self-test on the activated HVAC component based on the received one or more maintenance signal;  
generating self-test result signals from the activated HVAC component based on the self-test performed on the activated HVAC component;  
transmitting the self-test result signals from the HVAC system to the remote unit;  
receiving the self-test result signals from the HVAC systems at the remote unit; and  
storing the self-test result signals at the remote unit.

As discussed above, nowhere do Hill et al. appear to teach or suggest receiving the one or more maintenance signals at each of the HVAC systems, the one or more maintenance signals activating an HVAC component, performing a self-test on the activated HVAC component based on the received one or more maintenance signal, generating self-test result signals from the activated HVAC component based on the self-test performed on the activated HVAC component, as well as other elements of claim 43. Therefore, for at least these reasons, claim 43 is believed to be clearly not anticipated by Hill et al. For similar and other reasons, claims 44 and 45, which depend from claim 43 and include additional elements, are also believed to be clearly patentable over Hill et al.

#### ***Claim Rejections – 35 USC § 103***

On page 5 of the Office Action, claim 46 was rejected under 35 U.S.C. 103(a) as being unpatentable over Hill et al. After careful review, Applicant must respectfully disagree. As discussed above, claim 43 is believed to be clearly patentable over Hill et al. For similar and other reasons, claim 46, which depends from claim 43 and includes significant additional elements, is believed to be clearly patentable over Hill et al.

On page 6 of the Office Action, claims 1-20, 29-30, 35-38, and 41 were rejected under 35 U.S.C. 103(a) as being unpatentable over Hill et al. in view of AndelmanLelek (NPL). After careful review, Applicant must respectfully disagree.

Turning to claim 1, which recites:

1. (previously presented) A method for testing an HVAC system for a building structure from a remote location outside of the building structure, the HVAC system having an active component and a dormant component, the method comprising the steps of:

receiving a test request from the remote location;  
performing a test on the dormant component of the HVAC system in response to the test request, and producing a test result, the test including activating the dormant component; and  
transmitting the test result to a location outside of the building structure for subsequent analysis.

As can be clearly seen, claim 1 recites receiving a test request from the remote location, performing a test on the dormant component of the HVAC system in response to the test request, and producing a test result, the test including activating the dormant component, and transmitting the test result to a location outside of the building structure for subsequent analysis.

As discussed above, Hill et al. appears to disclose a system that merely queries for status information, checks for messages, and display diagnostic information in response to the query. Hill et al. does not appear to teach, disclose, or suggest: receiving a test request from the remote location; performing a test on a dormant component of the HVAC system in response to the test request, and transmitting the test result to a location outside of the building structure for subsequent analysis.

AndelmanLelek appears to be proposal for building commissioning services at Ashland High School in support of a design and construction process. The Seasonal Testing paragraph calls for testing portions of systems that are weather dependent during the opposite season that they were originally installed. AndelmanLelek states, “[i]f an air handling unit was commissioned during the summer a follow-up test would be performed during the winter for items such as the heating valve and damper controls.” This, however, would appear to teach having the HVAC contractor physically return in the winter to test the heating valve. The

Seasonal Testing paragraph would appear to relate to part of the commissioning process in order to make sure that the systems that were originally installed during the construction process were stable during the season that they were intended to serve. The Seasonal Testing paragraph of AndelmanLelek does not appear to relate to on-going maintenance of the installed systems after commissioning is complete, and nowhere does AndelmanLelek appear to teach, disclose, or suggest receiving a test request from a remote location; performing a test on a dormant component of the HVAC system in response to the test request, and transmitting the test result to a location outside of the building structure for subsequent analysis, as recited in claim 1. As can be clearly seen, neither Hill et al. nor AndelmanLelek teach or suggest many of the elements of claim 1.

Additionally, the Examiner has failed to provide any reasoning as to why it would be obvious to modify Hill et al. to performing a test on the dormant component of the HVAC system in response to a test request provided from a remote location to arrive at claim 1, particularly in view of the teaching in AndelmanLelek to have an HVAC contractor physically return (e.g. in the winter) to test portions of systems during the opposite season that they were originally installed. As the Examiner is well aware of:

The key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. The Supreme Court in *KSR* noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit. The Court quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006), stated that “[R]ejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR*, 550 U.S. at \_\_\_, 82 USPQ2d at 1396.

(See MPEP § 2141). Nowhere has the Examiner provided any articulated reasoning with some rational underpinning as to why it would be obvious to, for example, receive a test request from a remote location, perform a test on the dormant component of the HVAC system in response to the test request, and produce a test result, the test including activating the dormant component, and transmitting the test result to a location outside of the building structure for subsequent analysis, as recited in claim 1.

Therefore, for the reasons set forth above, as well as other reasons, claim 1 is believed to be clearly patentable over Hill et al. in view of AndelmanLelek. For similar and other reasons, dependent claims 2-20 are also believed to be clearly patentable over Hill et al. in view of AndelmanLelek.

Turning to claim 29, which recites:

29. (previously presented) A method for testing an HVAC system for an inside space of a building prior to a heating season, the HVAC system having a heating component, the method comprising the steps of:  
receiving a test request that is provided from a location remote from the building, and in response to receiving the test request:  
activating the heating component at a time when the HVAC system would not normally call for heat; and  
determining if the heating component is in compliance with a number of predetermined conditions.

As detailed above, nowhere do Hill et al. or AndelmanLelek, taken alone or in combination, teach or suggest receiving a test request that is provided from a location remote from the building, and in response to receiving the test request: activating the heating component at a time when the HVAC system would not normally call for heat, and determining if the heating component is in compliance with a number of predetermined conditions. For these and other reasons, claim 29 is believed to be clearly patentable over Hill et al. in view of AndelmanLelek.

Turning to claim 30, which recites:

30. (previously presented) A method for testing an HVAC system for an inside space of a building prior to a cooling season, the HVAC system having a cooling component, the method comprising the steps of:  
receiving a test request that is provided from a location remote from the building, and in response to receiving the test request:  
activating the cooling component at a time when the HVAC system would not normally call for cool; and  
determining if the cooling component is in compliance with a number of predetermined conditions.

As discussed above, nowhere do Hill et al. or AndelmanLelek, taken alone or in combination, teach or suggest receiving a test request that is provided from a location remote from the building, and in response to receiving the test request: activating the cooling component at a time



when the HVAC system would not normally call for cool, and determining if the cooling component is in compliance with a number of predetermined conditions. For these and other reasons, claim 30 is believed to be clearly patentable over Hill et al. in view of AndelmanLelek.

Turning to claim 35, which recites:

35. (previously presented) A method for testing a plurality of HVAC systems each in a different building structure or in a different region of a common building structure from a remote location, the HVAC systems having an active component and a dormant component, the method comprising the steps of:

transmitting a test request to each of the plurality of HVAC systems from the remote location;

performing one or more tests on each of the HVAC systems in response to the test request, and producing a test result for each of the HVAC systems, wherein at least one of the one or more tests that is performed activates and tests one or more of the active or dormant components of an HVAC system;

transmitting the test result for each of the HVAC systems to a remote location, and

storing the test results at the remote location.

As discussed above, nowhere do Hill et al. or AndelmanLelek, taken alone or in combination, teach or suggest transmitting a test request to each of the plurality of HVAC systems from the remote location, performing one or more tests on each of the HVAC systems in response to the test request, and producing a test result for each of the HVAC systems, wherein at least one of the one or more tests that is performed activates and tests one or more of the active or dormant components of an HVAC system, transmitting the test result for each of the HVAC systems to a remote location, and storing the test results at the remote location. For these and other reasons, claim 35 is believed to be clearly patentable over Hill et al. in view of AndelmanLelek. For similar and other reasons, claims 36-38 and 41, which depend from claim 35 or 41 and include significant additional elements, are also believed to be clearly patentable over Hill et al. in view of AndelmanLelek.

Reconsideration and reexamination are respectfully requested. It is submitted that, in light of the above remarks, all pending claims 1-20, 29-30 and 35-46 are in condition for allowance. If a telephone interview would be of assistance, please contact the undersigned attorney at 612-359-9348.

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Respectfully submitted,

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